

WE CLAIM:

- 1 1. A method for diagnosis and prognosis of cancer in a subject
2 comprising:
 - 3 (a) quantitatively detecting annexin protein in a biological
4 sample derived from a subject; and
 - 5 (b) comparing the level of protein detected in the subject's
6 sample to the level of protein detected in a control sample,
7 wherein an increase in the level of annexin protein detected in the subject's sample as
8 compared to a control sample is an indicator of a subject with cancer.
- 1 2. The method of Claim 1 wherein the annexin protein is detected
2 using an immunoassay.
- 1 3. The method of Claim 2 wherein the immunoassay is an
2 immunoprecipitation assay.
- 1 4. The method of Claim 1 wherein the sample is a lung tissue sample.
- 1 5. The method of Claim 1 wherein the cancer is lung cancer.

- 1 6. A method for diagnosis of a subject with cancer comprising:
- 2 (a) contacting an antibody containing biological sample
- 3 derived from a subject with a sample containing annexin
- 4 protein antigens under conditions such that an
- 5 immunospecific antigen-antibody binding reaction can
- 6 occur; and
- 7 (b) detecting immunospecific binding of the autoantibodies to
- 8 the annexin protein in the subject's biological sample,
- 9 wherein the presence of autoantibodies indicates the presence of cancer in the subject.

- 1 7. The method of Claim 6 wherein the step of detecting the
- 2 autoantibodies in the subject's biological sample comprises the use of a signal-generating
- 3 component bound to an antibody that is specific for antibodies in the subject's biological
- 4 sample.

- 1 8. The method of Claim 7 wherein the presence of autoantibodies in
- 2 the biological sample is measured by an immunoassay comprising:
- 3 (a) immobilizing one or more annexin protein onto a
- 4 membrane or substrate;
- 5 (b) contacting the membrane or substrate with a subject's
- 6 biological sample; and

7 (c) detecting the presence of autoantibodies specific for the
8 annexin protein in the subject's biological sample,
9 wherein the presence of autoantibodies indicates the presence of cancer.

1 9. The method of Claim 6 wherein the cancer is lung cancer.

1 10. A kit for diagnosis and prognosis of cancer in a subject comprising
2 a component for detecting the presence of annexin protein in a biological sample.

1 11. The kit of Claim 10 wherein the component for detecting annexin
2 protein is an anti-annexin antibody.

1 12. The kit of Claim 11 wherein the anti-annexin antibody is labeled.

1 13. The kit of Claim 12 wherein the label is radioactive, fluorescent,
2 colorimeter or enzyme label.

1 14. The kit of Claim 11 further comprising a labeled second antibody
2 that immunospecifically binds to the anti-annexin antibody.

1 15. A kit for diagnosis and prognosis of cancer in a subject comprising
2 a component for detecting the presence of annexin autoantibodies in a sample.

1 16. The kit of Claim 15 wherein the component is an annexin antigen.

1 17. The kit of Claim 16 wherein the annexin antigen is labeled.

1 18. The kit of Claim 16 wherein the annexin antigen is linked to a
2 solid phase.

1 19. The kit of Claim 15 further comprising a component for detection
2 of the annexin autoantibody.